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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,943	06/25/2001	William A. Mittelstadt	56842USA4A.002	9282

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Attention: Michael A. Hakamaki
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EXAMINER

PATEL, NIHIR B

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 08/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,943

Applicant(s)

MITTELSTADT ET AL.

Examiner

Nihir Patel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention: **Species of Valve Diaphragm**
Figure(s) 3, 6a, and 6b
Figure(s) 5a and 5b

Species of Valve Assembly
Figure(s) 4
Figure(s) 7
Figure(s) 8

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently claims 1 and 15 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Michael A. Hakamaki on August 2, 2002 a provisional election was made with traverse to prosecute the invention of figures 5a, 5b, and 7. Affirmation of this election must be made by applicant in replying to this Office action.

Claim 14 is hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to non-elected species or invention, there currently being no allowable generic or linking claim. Election was made with traverse.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 through 13, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to claim 1, there is insufficient antecedent basis for limitations “the frame”, “the valve assembly”, “the valve seat”, and “the valve flap”.

Referring to claims 2, 3, 5, and 6, there is insufficient antecedent basis for limitations “the valve flap”.

Referring to claim 4, there is insufficient antecedent basis for limitations “the valve flap” and “the valve contour”.

Referring to claim 7, there is insufficient antecedent basis for limitations “the plurality of support elements”.

Referring to claims 8, 9, and 10, there is insufficient antecedent basis for limitations “the valve seat” and “the valve flap”.

Referring to claim 11, there is insufficient antecedent basis for limitations “the valve body” and “the valve seat”.

Referring to claims 12 and 13, there is insufficient antecedent basis for limitations “the valve”.

Referring to claim 15, there is insufficient antecedent basis for limitations “the frame”, “the valve opening”, and “the valve seat”.

Referring to claim 16, there is insufficient antecedent basis for limitations “the face mask”.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7, 8, 10 through 12, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Japuntich et al. U.S. Patent No. 5,509,436. Referring to claim 1, Japuntich discloses a unidirectional fluid valve that comprises a valve body including a frame (50), a valve opening (52) through the frame (50), and a valve seat (26) extending from the frame (50) and at least partially surrounding the valve opening; and a valve flap (24) having a first portion attached to the frame and an adjacent second portion free to move from a first position where the second position is in contact with at least a part of the valve seat to a second position where at least part

of the second portion is spaced from the valve seat, wherein the valve flap has a contour shape.

Refer to figures 3 through 7, columns 6, 7, and 8.

Referring to claim 2, Japuntich shows that the valve flap further comprises a first side spaced from a second side, and wherein the valve contour varies between the first and second sides. Refer to figures 3 through 7 and columns 7 and 8.

Referring to claim 3, Japuntich shows that the valve flap has a compound curvature. Refer to figure 3.

Referring to claim 4, Japuntich shows that the valve flap further comprises a first end spaced from a second end, and wherein the valve contour varies between the first and second ends. Refer to column 7 lines 55 through 67.

Referring to claim 5, Japuntich shows that the valve flap further comprises a top surface, a bottom surface, and at least one support element extending from the top surface of the valve flap. Refer to figure 3 and 4 and column 5 and lines 45 through 55.

Referring to claim 6, Japuntich shows that at least one support element provides the contour shape of the valve flap. Refer to column 5 lines 55 through 67.

Referring to claim 7, Japuntich shows that the plurality of supporting elements, wherein each of the plurality of support elements is spaced from each adjacent support element. Refer to figure 4.

Referring to claim 8, Japuntich shows that the valve seat is generally planer and the valve flap has a curvature that causes a bias of the valve flap toward the valve seat to provide a seal between the valve flap and the valve seat. Refer to figures 3 and 4 and column 6 lines 33 through 67.

Referring to claim 10, Japuntich shows that the bias of the valve flap toward the valve seat is sufficient to provide a seal between the valve flap and the valve seat in any orientation of the unidirectional valve. Refer to figures 3 and 4.

Referring to claim 11, Japuntich shows that the frame (50) of the valve body includes an angled portion adjacent the valve seat. Refer to figures 3, 4, and 7.

Referring to claim 12, Japuntich shows that the valve is an exhalation valve. Refer to column 4 lines 60 through 65.

Referring to claim 15, Japuntich discloses a unidirectional fluid valve that comprises a face mask (10) having at least one opening for receiving a unidirectional valve; and a unidirectional valve that comprises a valve body including a frame (50), a valve opening (52) through the frame (50), and a valve seat (26) extending from the frame and at least partially surrounding the valve opening; and a valve flap (24) having a first portion attached to the frame and an adjacent second portion free to move from a first position where the second portion is in contact with at least a part of the valve seat to a second position where at least part of the second portion is spaced from the valve seat, wherein the valve flap has a contour shape. Refer to figures 3 through 7.

Referring to claim 17, Japuntich shows that the unidirectional valve is an exhalation valve. Refer to column 4 lines 60 through 65.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japuntich et al. U.S. Patent No. 5,509,436 in view of Magidson et al. U.S. Patent No. 6,047,698.

Japuntich discloses the applicant's invention as claimed with the exception of providing a portion of curvature of the valve flap that is at least partially flattened when the valve flap contacts the valve seat.

Magidson discloses a unidirectional fluid valve that does provide a portion of curvature of the valve flap that is at least partially flattened when the valve flap contacts the valve seat. Therefore it would be obvious to modify Japuntich's invention by providing a portion of curvature of the valve flap that is at least partially flattened when the valve flap contacts the valve seat in order to provide a better way to control the fluid flow.

Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japuntich et al. U.S. Patent No. 5,509,436 in view of Braun U.S. Patent No. 4,934,362.

Japuntich discloses the applicant's invention with the exception of stating that the valve is an inhalation valve.

Brun discloses a unidirectional fluid valve that does state that the valve can be an inhalation valve. Therefore it would be obvious to modify Japuntich's invention by stating that the valve is an inhalation valve so that one knows the limitations of the invention.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japuntich et al. U.S. Patent No. 5,509,436 in view of Adler U.S. Patent No. 5,357,947.

Japuntich discloses the applicant's invention as claimed with the exception of providing a face mask that is formed of a filtering material.


Adler discloses a face mask that does provide a filtering material. Therefore it would be obvious to modify Japuntich's invention by providing a filtering material in order to obtain clean air or fluid.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP
August 8, 2002


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